Document Rationale

Community health workers (CHWs) are essential to public health in low-resource settings. Home-based care supported by CHWs helps relieve the substantial burden the COVID-19 pandemic has placed on healthcare systems worldwide. Because CHWs can provide home-based care for people with mild to moderate illness, resources can focus on those with severe illness and help maintain essential health services. CHWs should provide training and support to communities to allow people with COVID-19 to be cared for safely at home.

With training about prevention and appropriate infection-control measures, CHWs also serve as good examples for how to prevent COVID-19 in the communities they support. Broadly, CHW duties include the following:

- Conducting outreach and community engagement for public health programs
- Providing health education and services
- Working as community advocates

The following considerations are intended for program managers and other public health officials supporting the COVID-19 response in low-resource, non-U.S. settings.

Risk Scenarios and Level of Community Health Worker Support

The level and type of CHWs' engagement with COVID-19 activities will depend on many factors, including available resources; CHWs' knowledge, skills, abilities, and interest in participating in various activities; and the level of transmission in a specific community. The following four scenarios are examples of how CHWs can support the COVID-19 pandemic response.

- **Scenario 1: CHWs who are engaged in non-COVID-19 response activities** such as staff engaged in general health promotion or management of people with chronic illnesses (e.g., HIV).
- **Scenario 2: CHWs who have limited engagement in some COVID-19 activities (e.g., community education)** but are primarily focused on delivering other health services to people with no COVID-19 symptoms.
- **Scenario 3: CHWs who have moderate engagement in COVID-19 response activities.** These CHWs include COVID-19 community education and prevention messages in their primary non-COVID-19 duties.
- **Scenario 4: CHWs who are fully engaged in COVID-19-related activities** such as COVID-19 symptom monitoring and supporting home-based care for COVID-19 patients.

The **risk level** for CHWs working in each scenario should be carefully assessed to determine the appropriate protection needed. This is important because the overuse or misuse of certain types of personal protective equipment (PPE) could lead to supply shortages (see World Health Organization (WHO) guidance).
- When CHWs are not required to have contact with or exposure to people with COVID-19 (e.g., Scenarios 1, 2, and in some cases Scenario 3), other prevention measures (e.g., maintaining distance more than 2 meters) should be used and **PPE should not be used.**
- When CHWs provide direct care or assistance to people with COVID-19, people with symptoms of COVID-19, or people who might have been exposed to COVID-19 (Scenarios 3 and 4), **appropriate PPE should be used**.

Additional information about these scenarios, including possible exceptions, as well as information on testing and prevention and control recommendations are available [here](#).

To ensure CHW safety, CHWs should be vaccinated for COVID-19 when the vaccine becomes available to them.

Community Education and Prevention of COVID-19

General COVID-19 community education and prevention activities can be included in CHWs' routine activities. These activities are ideal for CHWs with limited hours to work, CHWs with less clinical experience, and those who can include these activities among the non-COVID-19 services they already provide to the community.

Activities for Community Education should include

- Distribute community education materials on [symptoms of COVID-19](#) and [how it spreads](#).
- Answer community members' questions about COVID-19 and dispel myths, rumors, and misinformation circulating in the community.
- Provide education to reduce [stigma](#) against community members who are diagnosed with COVID-19, and encourage empathy and support to community members who are [isolating or quarantining](#).
- Promote [COVID-19 prevention measures](#) including frequent hand washing, respiratory hygiene (coughing/sneezing into elbow), [wearing masks properly](#) and getting [vaccinated](#) when vaccines become available.
- Encourage community members to seek testing or clinical care if they develop [COVID-19 symptoms](#) or come in close contact with people with COVID-19. The World Health Organization provides guidance for [prioritizing testing when diagnostic capacity is limited](#).
- Screen for [COVID-19 symptoms](#) when household or community visits are already included as part of routine duties.
- Provide awareness and support for prevention of [indirect impacts](#) of COVID-19 (e.g., violence, food insecurity, lack of routine health care, and childhood immunizations). Look for and consider [signs and symptoms](#) of violence and abuse.
- Use social media to promote factual information.

Providing Community Health Workers to Support Home-Based Care

The level and type of CHW support for home-based care will vary by location, available resources, and the CHW management structure. Program managers and other public health officials may need to consider recruiting, training, and supervising CHWs who support home-based care for COVID-19, including [contact tracing](#), education on prevention methods, and the proper use of PPE.

Recruiting and Training CHWs

- Determine the number and technical abilities of CHWs currently on staff.
- Hire more CHWs or reassign tasks to maintain continuity of services and reduce high patient volume.
- Train CHWs for additional responsibilities. This might include training on [protecting themselves and others, including unvaccinated people,](#) or training on protecting the confidentiality of patient medical information and testing results.
- Conduct virtual training sessions through mobile or online platforms.
- Provide easy-to-use [job aids](#) and resources translated into local languages such as
  - [How to make a handwashing station](#)
  - [How to make handwashing solutions](#)
  - [How to make disinfecting solutions](#)

Supervising CHWs

- Supervisory meetings should be conducted remotely and in collaboration with lowest administrative level health offices or departments.
    - o If in-person meetings are needed, enforce physical distancing and wear masks. If possible, meet outdoors or in well-ventilated areas.
  - Supervisors should encourage daily exposure assessments, daily temperature, and symptom checks for CHWs, by way of SMS messages, phone calls, emails, or a mobile or web-based application.
    - o Refer CHWs reporting a temperature above 38 °C (100.4 °F) or other COVID-19 symptoms for COVID-19 testing.
    - o Refer CHWs reporting close contact with someone with COVID-19 or someone with symptoms consistent with COVID-19 for COVID-19 testing.
    - o **When CHWs test positive**, they should stop working and self-isolate until:
        - At least 10 days after symptom onset, until at least 24 hours have passed without the use of fever-reducing medications, and other symptoms (cough, shortness of breath) have improved
                    or
        - National criteria for stopping isolation have been met
    - o In areas where COVID-19 testing is not available but a CHW meets the case definition for a suspected case, the CHW should still isolate based on national guidelines.

Strategies for Providing Home-Based Care

The activities associated with support for home-based care may be better suited for CHWs with experience in community surveillance, integrated management of childhood illnesses, or other clinical expertise (e.g., HIV/AIDS, malaria, tuberculosis). Most activities can be conducted remotely by phone or in-person. CHWs can support home-based care by using three main strategies.

Strategy 1. Assess patients' eligibility for home-based care.

Eligible candidates for home-based care include people who are younger than 65 years of age and those who are not at increased risk for severe illness from COVID-19. Assess homes and residential settings for suitability for home-based care, including

- Availability of a designated caregiver
    - o When possible, the caregiver *should not* be at increased risk for severe illness from COVID-19
- Ability of a CHW or caregiver to monitor changes in the patient at home
- Ability to open a window, if safe to do so
- Availability of a separate bedroom and bathroom for the person who is sick
    - o If this is not an option, ensure the patient can be separated from other household members as much as possible by
        - Maintaining at least 2 meters between beds. If this is not possible, sleep head to toe
        - Placing a curtain around or using another physical divider (e.g., shower curtain, large cardboard poster board, heavy blanket) to separate the patient's bed from others
        - Keeping people at increased risk separated from anyone who is sick
        - Limiting the entry of visitors into the household
- Ability to access adequate and reliable resources such as PPE (including medical masks and gloves), cleaning and disinfection supplies, food, water, medicine, and other necessities
    - o When feasible, provide these necessities if they are not the only barrier to home-based care

> **If patients are *not* eligible for home-based care**, they need to be linked to care in a community isolation center, health facility, or hospital. CHWs could also help organize and support "house swaps" if someone meets criteria but their living space does not.

Data and referral systems

Assessing eligibility for home-based care depends on the existence of a data and referral system that identifies those who might be eligible. The systems will vary by location and resource availability and should be up and running before CHWs begin assessing patients for eligibility. Candidates for home-based care can be identified through

- o   Local or national COVID-19 hotlines
- o   Rapid response teams
- o   Testing centers
- o   Community-based surveillance
- o   Self-referral (patient directly contacts health facility or CHW)
- o   Detection of COVID-19 by CHW or referral by another CHW while in community
- o   House-to-house or route-based visits (active case search)
- o   Link to contact tracing team

Strategy 2. Give support to households and caregivers providing home-based care.

Provide advice, training, and support to households and caregivers caring for someone sick at home with COVID-19. Households and caregivers should be informed about:

- Infection prevention and control, including personal hygiene and how caretakers can protect themselves and others in the household when caring for someone with COVID-19
- Signs and symptoms of severe illness requiring referral to health facility (e.g., trouble breathing, persistent pain or pressure in the chest, new confusion, inability to wake or stay awake, and pale, gray, or bluish [depending on skin tone] skin, lips, or nail beds)
- Cleaning and disinfection of household surfaces

Resources needed for home-based care

- Educational resources targeted to lower-literacy audiences (Topics addressed should include safe home-based care, including hygiene practices and when to seek emergency medical attention.)
- Handwashing stations with soap and water
- Alcohol-based hand rub with at least 60% alcohol (when soap and water are not available)
- Medical masks, when available
- Landline or mobile phones and airtime to call if people in the community need healthcare referrals
- Pulse oximeters for measuring blood oxygen saturation
- Transportation for the CHWs
- Home-based care kits for cleaning, disinfecting, handwashing, and patient care

Recommended activities to support home-based care include

- Distribute home-based care kits or refer household to where home-based kits are available.
- Provide support to households and community members affected by indirect impacts of COVID-19 (e.g., food insecurity, interpersonal violence, or abuse).

- o Promote local resources (e.g., a confidential referral network or hotline) for community members to call if they or others are experiencing violence or abuse.
- o Distribute food, water, medicine, hygiene materials, and household essentials.

Operational considerations for training and supporting households

- Conduct advisory and training activities remotely (e.g., by phone or SMS messages).
- Distribute home-based care kits and leave other supplies such as food and water at the household entrance.
- Start a referral system or hotline for community members to call if they are experiencing violence or abuse or need social support.
- Refer people with probable COVID-19 for symptom assessment and testing.
- Consider costs associated with distributing handwashing station materials, home hygiene kits, PPE, and basic household essentials.

Strategy 3. Monitor and refer patients for treatment if their symptoms worsen.

CHWs can help with daily monitoring of patients' symptoms until recovery, (at least 10 days have passed since symptoms first appeared, at least 24 hours have passed since last fever without the use of fever-reducing medications, and symptoms have improved). Consider having CHW perform daily pulse oximetry monitoring of patients [1,2] where available, and have them prioritize monitoring on days 4–7 after symptoms first appeared.

Note: Pulse oximeters might have suboptimal accuracy in certain populations, especially those with darker skin pigmentation. Therefore, CHWs should
- Assess the accuracy of pulse oximeters on the local population before obtaining them.
- Assess observed signs and symptoms (e.g., trouble breathing, persistent pain or pressure in the chest, new confusion, inability to wake or stay awake, and pale, gray, or bluish [depending on skin tone] skin, lips, or nail beds) and then triage and manage these patients.

If a CHW must have direct contact with someone as part of providing care (e.g., to give a patient a pulse oximeter or other supplies), the CHW should wear disposable gloves and a medical mask. The person being tested should also wear a mask. CHWs who are at increased risk for severe illness from COVID-19 should be given options that limit their risk of exposure (e.g., be assigned to duties with less risk for contact with people with confirmed or suspected COVID-19, such as virtual symptom monitoring).

- If a patient's symptoms worsen, CHWs can educate patients or their caregivers about symptoms requiring immediate medical attention (e.g., inability to wake or stay awake, new confusion, difficulty breathing, chest pain, pale, gray, or blue-colored skin, lips, or nail beds, depending on skin tone), and can help arrange emergency transportation, if needed and available.

Examples of resources for monitoring patients

- Checklists and tools to monitor patients' symptoms (paper or mobile app)
- Pulse oximeters
- Referral systems to link patients to contact tracing teams
- Communication or data systems to share information about patients' symptoms with community contact tracing teams
- Hotlines or other referral systems for patients to call if their symptoms worsen after their daily check-in with CHWs
- Referral systems to link patients to care when their symptoms worsen

Operational considerations for monitoring patients

Home-based care relies on the patient, a designated household member, or the CHW to monitor the patient's symptoms daily. When feasible, CHWs should monitor patients' symptoms remotely by phone each day. In-person visits can be done for households without access to a landline or mobile phone.

- *Distance:* CHWs should avoid entering the home to take pulse oximetry readings. Patients can come to the doorway to be assessed.
- *Reduce contact:* The CHW should wear a face mask and disposable gloves to set the pulse oximeter on the floor for the patient (or caregiver) to pick up and put on his/her own finger for assessment. In cases when the patient cannot bend down to pick up the pulse oximeter, the CHW can hand the pulse oximeter to the patient and immediately return to standing two meters away.
- *Sanitation:* CHWs should wash their hands with soap and water for 20 seconds or use alcohol-based hand rub before putting on gloves and after taking them off. The pulse oximeter should be properly sanitized after each use according to the manufacturer's instructions or with alcohol-based wipes or sprays containing at least 60% alcohol. Surfaces should be dried thoroughly to avoid pooling of liquids.
- *Consistency:* The same CHW should monitor the same patients (and potentially their household contacts) for the duration of the recovery period.

Community Health Worker Safety

To ensure the **safety** of CHWs and the patients and people they work with, CHWs **should**

- Wear masks at all times in the community. Most people with COVID-19, including children, have mild symptoms or no symptoms at all, and using masks prevents people who might not realize they are infected from spreading the virus to others.
- Stay at least 2 meters away from other people, when possible.
- Meet community members outdoors, or in well-ventilated areas.
- Practice no-contact greetings, such as waving, bowing, or head nodding.
- Have a sufficient supply of materials, including masks and enough soap, or alcohol-based hand rub (at least 60% alcohol), needed to conduct their assigned tasks and properly protect themselves.
- Be trained in the proper use and disposal of PPE.

CHWs should NOT:

- Meet with or bring groups of people together.
- Enter homes unless necessary to provide care. In the rare situations where they must enter homes, they should use appropriate PPE.
- Touch anyone without appropriate PPE.

Additional Resources

- Symptom assessment (to refer for testing)
- Home care for patients with suspected or confirmed COVID-19 and management of their contacts
- Rational use of personal protective equipment for COVID-19 and considerations during severe shortages
- Training modules for healthcare workers and the public on effective preparedness and response, testing and treatment, and understanding COVID-19: WHO, Partnership to Accelerate COVID-19 Testing (PACT) Initiative, Johns Hopkins University.

References

[1] Shah, S., Majmudar, K., Stein, A., et al. (2020), Novel use of home pulse oximetry monitoring in COVID-19 patients discharged from the emergency department identifies need for hospitalization. *Acad Emerg Med.* doi: 10.1111/acem.14053. Accessed July 22, 2020

[2] Luks, A.M. & Swenson, E.R. (2020). Pulse oximetry for monitoring patients with COVID-19 at home: Potential pitfalls and practical guidance. *Annals of the American Thoracic Society*. doi: https://doi.org/10.1513/AnnalsATS.202005-418FR. Accessed August 5, 2020.